

What is claimed is:

1 1. An apparatus for sterilizing articles, comprising:
2 a chamber for receiving articles to be sterilized;
3 a heater for heating liquid in said chamber to form steam;
4 a pressure sensor in communication with said chamber; and
5 a control mechanism, wherein the pressure of steam inside said chamber is
6 sensed by said pressure sensor, and said control mechanism maintains the steam at
7 a predetermined pressure until an end of a sterilization cycle.

1 2. The apparatus of claim 1, wherein said heater is adapted to be cycled on
2 and off by said control mechanism during the sterilization cycle to maintain the
3 predetermined pressure of steam.

1 3. The apparatus of claim 1, wherein at least two pressure sensors are
2 provided, each said pressure sensor operable to select different predetermined
3 pressures.

1 4. The apparatus of claim 1, wherein said pressure sensor is a valve
2 operable at a predetermined pressure.

1 5. The apparatus of claim 1, wherein the chamber is capable of receiving a
2 predetermined volume of liquid.

1 6. The apparatus of claim 1, wherein said control mechanism includes a
2 timer.

1 7. The apparatus of claim 6, wherein said timer is operable by a user of the

1 apparatus.

1 8. The apparatus of claim 1, further comprising a vent valve to vent said
2 chamber at an end of the sterilization cycle.

1 9. The apparatus of claim 8, further comprising a liquid collection reservoir
2 connected to said vent valve.

1 10. The apparatus of claim 1, further comprising a temperature selection
2 switch operable by a user of the apparatus, said selection switch controlling said
3 predetermined pressure.

1 11. A method of sterilizing articles comprising the steps of:
2 providing a sterilizing apparatus having a chamber, a heater, a pressure
3 sensor and a control mechanism;
4 placing articles to be sterilized in the chamber;
5 supplying liquid to the apparatus
6 heating the liquid to form steam;
7 sensing the pressure of steam inside the chamber, wherein when a
8 predetermined pressure of steam inside the chamber is attained, the control
9 mechanism is activated to retain the steam at the predetermined pressure of steam
10 until a sterilization cycle is completed.

1 12. The method of claim 11, wherein the heater is cycled on and off during
2 the sterilization cycle to maintain the predetermined pressure of steam.

1 13. The method of claim 11, further comprising the step of selecting the

2 predetermined pressure of steam from at least two predetermined pressures.

1 14. The method of claim 11, wherein the liquid is supplied to the apparatus
2 at a predetermined volume.

1 15. The method of claim 11, further comprising venting the steam at the
2 end of the sterilization cycle.

1 16. A method of sterilizing articles, comprising the steps of:
2 providing a sterilizing apparatus having a chamber, a heater, and a control
3 mechanism;
4 placing articles to be sterilized in the chamber;
5 supplying liquid to the apparatus;
6 heating the liquid to form saturated steam;
7 retaining the saturated steam in the chamber for a predetermined period of
8 time at a predetermined pressure; and
9 venting the chamber, whereby the articles are substantially dry at the end of
10 a sterilization cycle.

1 17. The method of claim 16, further comprising the step of retaining the
2 articles in the chamber for a period of time at the end of a sterilization cycle to cool
3 the articles.

1 18. The method of claim 16, wherein the predetermined pressure is
2 selectable from at least two different predetermined pressures.

1 19. The method of claim 16, wherein a predetermined volume of liquid is

2 heated to form the steam.

1 20. The method of claim 16, wherein the saturated steam is heated while it
2 is retained in the chamber in order to maintain the saturated steam at the
3 predetermined pressure.

1 21. The method of claim 20, wherein the heating of the saturated steam is
2 intermittent during a sterilization cycle.

1 22. A method of reducing biofilm contamination in a sterilizing apparatus,
2 comprising the steps of:

3 providing fresh liquid to the apparatus;
4 heating the fresh liquid to form steam;
5 retaining the steam in the apparatus for a predetermined period of time in
6 order to sterilize articles placed in the apparatus;
7 venting the apparatus;
8 condensing the steam to form waste liquid; and
9 discharging the waste liquid.

1 23. The method of claim 22, wherein the steam is retained in the apparatus
2 at a predetermined pressure.

1 24. The method of claim 22, wherein a predetermined volume of fresh liquid
2 is heated to form the steam.

1 25. The method of claim 22, wherein the fresh liquid and the waste liquid
2 are kept separate from one another.

1 26. The method of claim 22, wherein the fresh liquid is heated to form
2 saturated steam.

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